



Compact Substations upto 24kV

Medium-Voltage Switchgear

SIEMENS

Technical Data, Design & Construction

Medium Voltage Compact Substation upto 24kV Solution for Quality Power.....



Compact substation with SF6-insulated RMU 8DJ20, Sch10

Siemens has been serving the Indian market with a wide range of Medium voltage Power Distribution Systems for more than four decades. Siemens Compact Substations (CSS) is a product from the MV Distribution product family and is designed keeping in mind the fast growing power needs of Indian cities, combined with reduced urban space availability. The CSS can be ideally installed in residential and commercial complexes, industrial environments, utilities where free space is a major constraint.

Features

- ✓ Factory built and tested
- ✓ Easy and simple to install reducing the on-site operations
- ✓ Ready for network connection
- ✓ Design complies to IEC 61330
- ✓ Maintenance free SF6 insulated Ring Main Unit for MV networking
- ✓ SCADA compatible equipments
- ✓ Available with oil cooled/dry type transformers upto 1000kVA
- ✓ Rust, corrosion and weather proof enclosure
- ✓ Independent access for all the compartments for routine maintenance

Technical Data

Reference standard	IEC61330
Rated voltage	11kV*
Rated power frequency withstand voltage kV rms, min	28kV*
Rated lightning impulse withstand voltage kV, 1.2/50 mS	75kV*
Rated frequency	50Hz
X'mer rating upto	1000KVA**
Enclosure degree of protection	IP23

* Option – higher voltages on request
**Option – higher rating transformer on request

Standard Variants

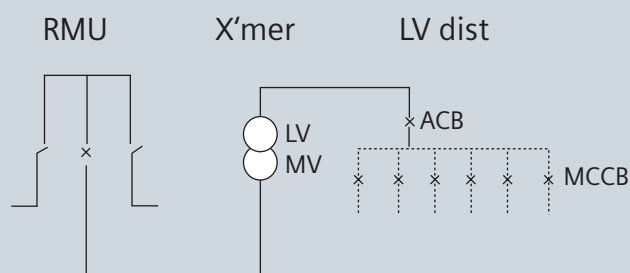


Figure-1

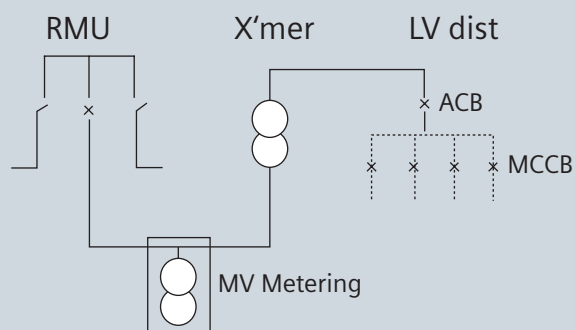


Figure-2

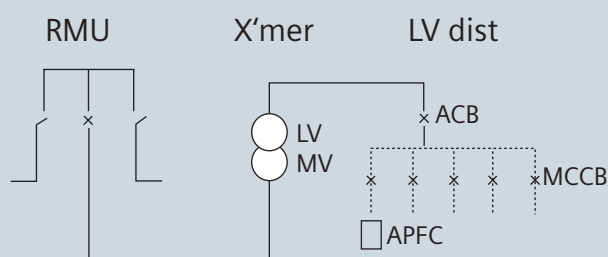
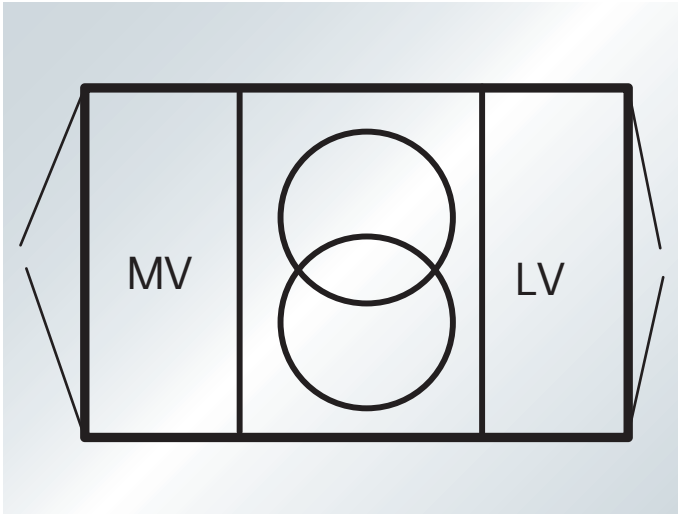


Figure-3

Customer Benefits & Product Range



8DJ20, Scheme 10

Model	Configuration
Fig.1	3 way RMU 8DJ20, sch10 with upto 1000kVA transformer and LV
Fig.2	3 way RMU 8DJ20, sch10 with MV metering, upto 1000kVA transformer and LV
Fig.3	3 way RMU 8DJ20, sch10 with upto 1000kVA transformer, 300kVAr APFC and LV

Overview

Compact Substations is comprising:

- 2mm thick GI/Painted steel sheet enclosure mounted on a hot-dip galvanized 4mm thick GI base. Access to the MV RMU, LV and transformer is provided by doors on each side of the CSS
- MV switchgear is a compact SF6-insulated ring main unit type 8DJ20, scheme 10
- Transformer can be either oil cooled or dry type
- LV distribution is done with the help of incoming ACB and outgoing MCCB/switch fuse. This can be customized as per the requirement.
- Optional APFC panel can be accommodated with 300kVAr capacitor bank controlled by an intelligent microprocessor based power factor correction relay with data logger
- Cable entries are from bottom

Ring Main Unit type 8DJ20 in Compact Substation:

- Maintenance free
- Gas insulated, metal enclosed RMU is used for the MV networking in the compact substation.
- Ring feeders are provided with three position disconnect switch, while transformer feeders are provided with circuit breaker acting as three position switch
- Block type construction
- Cable connection are from front
- Logical mechanical interlocks
- Manual operating mechanism (option: with motor)
- Capacitive voltage detection system for all the feeders
- Extensible version available on request

Advantages:

- ✓ Different range of distribution transformers
- ✓ Maintenance free ring main unit type 8DJ20 is used for MV networking, type tested for internal arc fault.
- ✓ All live parts in the Compact Substation are protected against unintentional contact by means of lockable doors
- ✓ Reduced overall plant and operating costs
- ✓ Compact : Can be installed in a limited space of 6 sq. meter
- ✓ Appealing aesthetics

ISO 9001, ISO 14001 Certification



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